

Performance Based Contracting

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Performance Based Contracting

- **“NASA plans to implement PBC wherever it makes sense, including contracts for services, hardware, and R&D. All new contracts will be considered for suitability to PBC”**
- **Goddard’s Goal – 80% of contract obligations will be for PBC contracts**

Level Of Effort (LOE) Contracting



LOE – The Universal Contract (“We loved you, man!!!”)

- **Beloved by our Technical People**
 - *SOW’s short, simple, easy to write (details contained in actual task assignments)*
 - *Broad scope*
 - *Tasks were amenable to extreme detail*
 - *Tasks both big and small easily accommodated*
 - *Tasks easily renewable/extended*
 - *Budgets were predictable and could be allocated to minute levels*
- **Beloved by SEB’s**
 - *The government told offerors how many hours to bid, as well as what kind*
 - *Simplified cost evaluation*
 - *Plug numbers for ODC’*
 - *Only discriminators were indirect rate and fee percentages*
 - *Seldom a need to do probable cost adjustments*
- **Beloved by Procurement People**
 - *No debate over contract type*
 - *No change orders*
 - *10% fee limit*
 - *Terms and Conditions – “no-brainers”*

LOE – The Dark Side

- **Susceptible to misuse**
 - *Tasks specifying Contractor personnel by name*
 - *Tasks for inappropriate purchases*
 - *Tasks could be inappropriately shifted to other contracts*
- **Micromanagement by the Government**
 - *Personal Services*
 - *Technical approach and staffing dictated by the Government*
 - *Billions and billions of tasks*
- **Essentially, the contract deliverables were hours of labor**
 - *Minimum requirement – don't sleep, continue to breathe*
- **Contractor could be rewarded for minimal performance**
 - *No such thing as labor hour overruns*

LOE – Incentivizing the wrong thing

- **Hardware contract with labor hour overrun**
 - *Considered cost overrun*
 - *No change to scope of contract*
- **LOE contract with labor hour overrun**
 - *Contractor gets fee on additional hours*
 - *Additional hours considered “New Work” (need JOFOC). Contractor must stop work until contract mod completed.*
- **Theoretical case study**
 - *The Acme Company has two contracts that utilize the same type of labor, one FFP, the other Cost Plus LOE*
 - *Acme has two employees, Mary Smith and Sally Jones*
 - *Mary Smith can produce 10 units per hour, Sally Jones 2 units. “Normal” productivity rate is 6 per hour*
 - *Mary Smith works on FFP contract, producing cost under-run, additional profit*
 - *Sally Jones works on CP LOE contract, producing cost overrun, new work mod*

PBC vs. LOE

- **Require outcomes, not processes**
 - *Sound theory*
 - *Difficult practice*
- **Easier to do for “end-items”**
 - *Contract specification easily incorporates objective measures*
 - *Hard to do for most services*
 - *Mandating the type of service is easy*
 - *Specifying the acceptable outcome of the service is difficult*
- **Use insight, not oversight**
 - *How much risk are we willing to take? Who takes blame for failure?*
- **Rely on Structured, Objective Contract Incentive provisions to insure success**
- **Bottom Line**
 - *LOE was easy, but not always the best type of contract*
 - *PBC is a good type of contract, but it isn't easy*

FAR Subpart 2.1- Definitions

"Performance-based contracting" means structuring all aspects of an acquisition around the purpose of the work to be performed with the contract requirements set forth in clear, specific, and objective terms with measurable outcomes as opposed to either the manner by which the work is to be performed or broad and imprecise statements of work.

FAR 37.601 General

- Performance-based contracting methods are intended to ensure that required performance quality levels are achieved and that total payment is related to the degree that services performed meet contract standards. Performance-based contracts:

- *(a) Describe the requirements in terms of results required rather than the methods of performance of the work;*
- *(b) Use measurable performance standards (i.e., terms of quality, timeliness, quantity, etc.) and quality assurance surveillance plans (see 46.103(a) and 46.401(a));*
- *(c) Specify procedures for reductions of fee or for reductions to the price of a fixed-price contract when services are not performed or do not meet contract requirements (see 46.407); and*
- *(d) Include performance incentives where appropriate.*

Examples

- Results required rather than the methods of performance of the work;
 - *“Instrument problems cause no delay to Spacecraft I&T schedules”, rather than “Support I&T of instrument at Spacecraft vendor’s plant”*
 - *“On-orbit anomalies are analyzed within x hours and resolved with no more than loss of y spacecraft data” rather than “support anomaly investigation”*
- (b) Measurable performance standards
 - *(Hardware) Data rate, allowable number of errors, pointing accuracy, etc.*
 - *(Services) Response time, customer surveys, error rate, etc.*
- (c) Procedures for reductions of fee
 - *CPIF rather than CPAF*
 - *\$X per day late delivery penalty*
- (d) Performance incentives
 - *\$X per day of mission life in excess of specification*
 - *\$X for each percent of resolution in excess of specification*

Insight versus Oversight

- **Examples:**

- *Contractor informs us of configuration changes, rather than the Government reviewing and approving configuration changes*
- *Government receives informational copy of CDRL items, but does not review or approve them*
- *Government attends Launch Readiness Review but has no role in decision*

- **Problems with insight:**

- *What if insight causes Government to conclude that mission requirements will not be met but Contractor disagrees?*
- *Stop Work Order? Change Order? Termination?*

PBC Is Difficult Because of the Unique Risks Inherent to NASA R&D Contracting

- **Program/Budget Stability** – Contracts are negotiated based upon the assumption that future funding will materialize as planned. Budget shortfalls necessitate re-planning.
- **Requirements Stability** – Contracts specifications are based upon requirements written during the Formulation Phase. Evolution of requirements drives contract changes.
- **Maturity of Technology** – Successful contract performance often assumes maturation of new technologies. Late maturation causes cost and schedule growth.
- **Government Furnished Property (GFP)** – Contracts often include GFP that must be used in contract performance. Late or deficient GFP causes cost and schedule growth.
- **Partnership Arrangements** – Contracts often include elements developed by non-NASA partner organizations. Loss of these contributions causes cost and schedule growth or project cancellation.

Expectations Versus Reality *(1 of 2)*

- In recent years NASA has moved away from traditional CPAF contracting:
 - *Fixed Price used for major spacecraft (GOES, TDRSS, RSDO)*
 - *Structured Incentives for other major contracts*
 - *Emphasis on Performance-Based contracting to maximum extent possible*
- These changes do not affect GSFC's commitment to mission success
 - *GSFC is the entity responsible for mission success, not the Contractor*
 - *GSFC will utilize its knowledge and experience to insure mission success*
 - *GSFC wants a thorough understanding of what is being done by its contractors to insure mission success*
 - *GSFC will always be a highly-informed, knowledgeable, and assertive customer*

Expectations Versus Reality *(2 of 2)*

- **Changes in contracting approach can lead to misunderstandings & unrealistic expectations**
 - *Commercial practices may not be up to the standards expected by GSFC*
 - *Contract terms & conditions alone do not provide the guarantees GSFC needs – recovering the cost of a mission does not make up for the loss of a mission*
 - *GSFC expects that its expert advice will be considered and taken seriously by Contractors*
- **Conclusion – Changes in contracting approach have increased the need for dialogue between GSFC and its customers, not reduced them**

Where are we?

- **Goddard still struggling with PBC**
 - *Amount of oversight required (we are held responsible for Contractor failure)*
 - *Developing objective hardware standards (if R&D or pushing state of the art is involved)*
 - *Developing objective services standards*
 - *Developing objective fee arrangements*
- **Goddard struggling with surveillance plans**
 - *Technical people uncertain of role*
 - *Procurement's role fuzzy*
 - *Process/guidance unclear*
- **Impact of CAIB Report?**